Docket No.: IFM-001CPCN5 Examiner: Z.A. Fay Group Art Unit: 1618

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of the claims and listing of the claims in the application:

1. (Previously Presented) A method for rescuing damaged nerve cells in a patient, comprising:

administering to a patient having damaged nerve cells an amount of a deprenyl compound, wherein the deprenyl compound is represented by the structure of Formula I:

$$R_4-R_3-CH-N$$
 R_2
 R_5-R_6

wherein

R₁ is hydrogen, alkyl, alkenyl, alkynyl, aralkyl, alkylcarbonyl, arylcarbonyl, alkoxycarbonyl, or aryloxycarbonyl;

R₂ is hydrogen or alkyl;

R₃ is a single bond, alkylene, or $-(CH_2)_n - X - (CH_2)_m$;

in which X is O, S, or N-methyl; m is 1 or 2; and n is 0,1, or 2;

R4 is alkyl, alkenyl, alkynyl, heterocyclyl, aryl or aralkyl; and

R5 is alkylene, alkenylene, alkynylene and alkoxylene; and

R₆ is C₃-C₆ cycloalkyl or

$$-C \equiv CH$$
; or

R₂ and R₄-R₃ are joined to form, together with the methine to which they are attached, a cyclic or polycyclic group;

and pharmaceutically acceptable salts thereof;

such that rescuing of damaged nerve cells occurs in the patient;

with the proviso that the deprenyl compound is not selected from the group consisting of deprenyl, pargyline, AGN-1133, or AGN1135.

2. (Cancelled)

3. (Previously Presented) The method of claim 1, wherein R₁ is a group that can be removed in vivo.

Docket No.: IFM-001CPCN5 Examiner: Z.A. Fay Group Art Unit: 1618

4. (Previously Presented) The method of claim 1, wherein R_1 is hydrogen.

5. (Previously Presented) The method of claim 1, wherein R_1 is alkyl.

6. (Original) The method of claim 5, wherein R_1 is methyl.

7. (Previously Presented) The method of claim 1, wherein R_2 is methyl.

8. (Previously Presented) The method of claim 1, wherein R₃ is methylene.

9. (Previously Presented) The method of claim 1, wherein R₄ is aryl.

10. (Previously Presented) The method of claim 1, wherein R_4 is phenyl.

11. (Previously Presented) The method of claim 1, wherein R₅ is methylene.

12. (Previously Presented) The method of claim 1, wherein R₆ is -C≡CH

13. (Previously Presented) The method of claim 1, wherein the deprenyl compound has the structure

$$R_1$$
 CH_2 - C
 CH_2

wherein R₁ is hydrogen, alkyl, alkenyl, alkynyl, aralkyl, alkylcarbonyl, arylcarbonyl, alkoxycarbonyl, or aryloxycarbonyl.

14. (Previously Presented) The method of claim 1, wherein the deprenyl compound is represented by the structure:

Docket No.: IFM-001CPCN5 Examiner: Z.A. Fay Group Art Unit: 1618

$$R_4$$
— R_3 - CH - N
 R_2
 CH_2 - C = CH

in which

R₁ is hydrogen, alkyl, alkenyl, alkynyl, aralkyl, alkylcarbonyl, arylcarbonyl, alkoxycarbonyl, or aryloxycarbonyl;

R₂ is hydrogen or alkyl;

R₃ is a bond or methylene; and

R4 is aryl or aralkyl; or

R₂ and R₄-R₃ are joined to form, together with the methine to which they are attached, a cyclic or polycyclic group;

and pharmaceutically acceptable salts thereof.

15. (Previously Presented) The method of claim 1, wherein the deprenyl compound is represented by the structure:

$$R_4-R_3-CH-N$$
 R_2
 $R_5-C\equiv CH$

in which

R₂ is hydrogen or alkyl;

R₃ is a bond or methylene; and

R₄ is aryl or aralkyl; or

R₂ and R₄-R₃ are joined to form, together with the methine to which they are attached, a cyclic or polycyclic group; and

R₅ is alkylene, alkenylene, alkynylene and alkoxylene;

and pharmaceutically acceptable salts thereof.

16. (Previously Presented) The method of claim 1, wherein the deprenyl compound is represented by the structure:

Docket No.: IFM-001CPCN5 Examiner: Z.A. Fay Group Art Unit: 1618

$$R_1$$
 CH_2
 CH_3
 CH_2
 CH_3
 CH_2
 CH_3

in which

R₁ is hydrogen, alkyl, alkenyl, alkynyl, aralkyl, alkylcarbonyl, arylcarbonyl, alkoxycarbonyl, or aryloxycarbonyl;

A is a substituent independently selected for each occurrence from the group consisting of halogen, hydroxyl, alkyl, alkoxyl, cyano, nitro, amino, carboxyl, -CF3, or azido;

n is 0 or an integer from 1 to 5;

and pharmaceutically acceptable salts thereof.

- 17. (Original) The method of claim 1, wherein the deprenyl compound is (-)desmethyldeprenyl.
- 18. (Cancelled)